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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/695,293   | 10/27/2003  | David C. McClure     | 03-C-009            | 3950             |
| 7590   | 11/03/2004  |                      | EXAMINER            |                  |
| Lisa K. Jorgenson, Esq.<br>STMicroelectronics, Inc.<br>1310 Electronics Drive<br>Carrollton, TX 75006-5039 |             |                      | TRA, ANH QUAN       |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 2816                |                  |

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                             |                         |  |
|------------------------------|-----------------------------|-------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b>      | <b>Applicant(s)</b>     |  |
|                              | 10/695,293                  | MCCLURE, DAVID C.       |  |
|                              | <b>Examiner</b><br>Quan Tra | <b>Art Unit</b><br>2816 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 27 October 2003.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-25 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Huber (USP 6466485).

As to claim 1, Huber discloses in figure 1 a system comprising a circuit (all elements except 36 and 40), and a regulator circuit (36 and 40) operable to selectively provide a current (output of 46 in figure 3) supplied by a system power source to the circuit at a first current value (when transistor 84 in figure 3 is off) and at a second current value (when transistor 84 is on).

As to claim 2, figure 3 shows that the regulator circuit comprises a plurality of current sources (82 and 84,85).

As to claim 3, figure 3 shows that at least one (84, 85) of the plurality of current sources is selectively activated by an enable signal (boost, output of 64 in figure 4, or vgcc\_en in figure 4).

As to claim 4, figures 3 and 5 show that the plurality of current sources form mirror branches of a current mirror.

As to claim 5, figure 3 shows that the at least one of the plurality of current sources comprises a first transistor (85) and a second transistor (84) connected in series to the first transistor, wherein a control terminal of the first transistor is coupled to a control terminal of a

transistor (transistor that generating signal VgRegbias in figure 5) in a reference leg of the current mirror and a control terminal of the second transistor is coupled to the enable signal.

As to claim 6, figure 4 shows a delay component (68, 70, 66, 71, 72) responsive to the enable signal and operable to delay the activation of the at least one of the plurality of current sources relative to the enable signal being in an enabling state.

As to claim 7, figures 3 and 4 show that the delay component is coupled between the enable signal and the regulator circuit,

As to claim 8, figure figure 4 shows that the delay component delays one of a rising edge and a falling edge of the enable signal by an amount that is greater than a delay of the other of the rising edge and the falling edge of the enable signal.

As to claim 9, figure 1 shows that the circuit includes a memory device.

As to claim 10, figure 1 shows that the memory device and the regulator circuit both receive an enable signal (input of 36), the current value provided by the regulator circuit being based upon a value of the enable signal.

As to claim 11, figure 1 shows a system comprising a circuit (all elements except 40 and 36) with an enable input (input of 36) for selectively enabling an operation to be performed in the circuit; and a regulator circuit (36 and 40) coupled between a system power source and the circuit and having a control input (input of 36) for controlling the amount of supply current available to the circuit wherein the enable input of the circuit and the control input of the regulator circuit are coupled one to the other.

As to claim 12, figure 3 shows that the regulator circuit comprises a plurality of current sources (82 and 84, 85), at least one of the plurality of current sources is activated by an enable signal coupled to the control input of the regulator circuit.

As to claim 13, figure 3 and 5 show that the plurality of current sources form mirror branches of a current mirror.

As to claim 14, figure 3 shows that the at least one of the plurality of current sources is adapted for receiving the enable signal.

As to claim 15, figure 4 shows a delay component operable to delay the deactivation of the at least one of the plurality of current sources relative to the circuit being disabled.

As to claim 16, figure 4 shows the delay component is coupled between the enable signal and the regulator circuit.

As to claim 17, figure 4 shows that the delay component delays one edge of the enable signal relative to a second edge of the enable signal.

As to claim 18, figure 3 shows that the at least one of the plurality of current sources comprise a first transistor (85) and a second transistor (84) connected in series to the first transistor, and a control terminal of the second transistor is coupled to the enable signal.

As to claim 19, figure 1 shows that the circuit includes a memory device, and the enable input is a chip enable input of the memory device.

As to claim 20, figure 1 shows the memory device and the regulator circuit receive the same enable signal.

As to claim 21, figure 1 and 3 show a method, comprising the steps of: receiving an enable signal (boost or vgcc\_en); and supplying a current to a circuit (all elements in figure 1 except 40 and 36) having a current level that is based on a value of the enable signal.

As to claim 22, figure 3 shows that the step of supplying the current further comprises the step of: activating any one or more of a plurality of current sources (82 and 84, 85) in a regulator circuit (40) so as to control the current supplied to the circuit, based on the value of the enable signal.

As to claim 23, figure 4 shows that the step of supplying the current further comprises the step of delaying current source deactivation relative to the current source activation.

As to claim 24, figure 1 shows the step of selectively enabling an operation in the circuit based on the value of the enable signal.

As to claim 25, figure 3 shows the step of supplying a current relative to the step of selectively enabling an operation.

### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. These references are cited as interest because they show some circuits analogous to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quan Tra whose telephone number is 571-272-1755. The examiner can normally be reached on 8:00 A.M.-5:00 P.M..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Quan Tra  
Patent Examiner

October 28, 2004